INTERNATIONAL JOURNAL OF PLASTICITY

Volume 7, Numbers 1/2 1991

CONTENTS

J.F. Shao **J.P. Henry**	1	Development of an elastoplastic model for porous rock
J. Eftis **J.A. Nemes** **P.W. Randles**	15	Viscoplastic analysis of plate-impact spallation
Nicolae Cristescu	41	Nonassociated elastic/viscoplastic constitutive equations for sand
P. Boisse **P. Ladeveze** **M. Poss** **P. Rougee**	65	A new large time increment algorithm for anisotropic plasticity
Th. Lehmann	79	Thermodynamical foundations of large inelastic deformations of solid bodies including damage
Kenneth Runesson **Niels Saabye Ottosen** **Dunja Perić**	99	Discontinuous bifurcations of elastic-plastic solutions at plane stress and plane strain

Volume 7, Number 3 1991

CONTENTS

M. Haghi **L. Anand**	123	Analysis of strain-hardening viscoplastic thick-walled sphere and cylinder under external pressure
N. Aravas **E.C. Aifantis**	141	On the geometry of slip and spin in finite plastic deformation

I.R. Göbel 161 A stochastic recrystallization model: The description of recrystallization by a Markov process

Hiroshi Takahashi
Isao Shiono 199 Backlash model for large deformation behavior of aluminum under torsional cyclic loading

Sujian Huang
Akhtar S. Khan 219 An analysis of finite elastic-plastic deformation under biaxial compression

I Plasticity '91—Preliminary List of Presentations

Volume 7, Number 4 1991

CONTENTS

O.T. Bruhns
M. Pitzer 235 Some remarks on integration procedures for a viscoplastic constitutive law

Craig L. Hom
Robert M. McMeeking 255 Plastic flow in ductile materials containing a cubic array of rigid spheres

J. Eftis
J.A. Nemes 275 Evolution equation for the void volume growth rate in a viscoplastic-damage constitutive model

P. Franciosi
A. Zaoui 295 Crystal hardening and the issue of uniqueness

W. Diepolder
V. Mannl
H. Lippmann 313 The cosserat continuum, a model for grain rotation in metals?

George Z. Voyiadjis
Louay M. Mohammad 329 Theory vs. experiment for finite strain viscoplastic, Lagrangian constitutive model

Volume 7, Number 5 1991

CONTENTS

Maria K. Duszek **Piotr Perzyna**	351	On Combined Isotropic and Kinematic Hardening Effects in Plastic Flow Processes
E. Van der Giessen	365	Micromechanical and Thermodynamic Aspects of the Plastic Spin
Zbigniew Kowalewski	387	Creep Behavior of Copper under Plane Stress Rate
J.C. Moosbrugger	405	Some Developments in the Characterization of Material Hardening and Rate Sensitivity for Cyclic Viscoplasticity Models
Wolfgang Ehlers	433	Towards Finite Theories of Liquid-Saturated Elasto-Plastic Porous Media

Volume 7, Number 6 1991

CONTENTS

T. Khedro **K.S. Havner**	477	Investigation of a one-parameter family of hardening rules in single slip in f.c.c. crystals
T. Sakaki **K. Kakehi** **Y. Ohtakara**	505	Plastic anisotropy of clad sheets
Richard G. Stringfellow **David M. Parks**	529	A self-consistent model of isotropic viscoplastic behavior in multiphase materials
Marek-Jerzy Pindera **Jacob Aboudi** **James B. Brayshaw**	549	Micromechanical investigation of the convexity of yield surfaces of metal matrix composites

Y.K. Lee 567 Finite elastoplastic deformation in metal forming processes with a complete formulation for sliding friction

Akhtar S. Khan
Ying Xiang
Sujian Huang 607 Behavior of Berea sandstone under confining pressure. Part I: Yield and failure surfaces, and nonlinear elastic response

---

Volume 7, Number 7 1991

CONTENTS

V.A. Lubarda 625 Some aspects of elasto-plastic constitutive analysis of elastically anisotropic materials

J.-D. Wang
N. Ohno 637 Two equivalent forms of nonlinear kinematic hardening: Application to nonisothermal plasticity

P.S. Follansbee
G.T. Gray, III 651 The response of single crystal and polycrystal nickel to quasistatic and shock deformation

J.L. Chaboche 661 On some modifications of kinematic hardening to improve the description of ratchetting effects

Claudia Comi
Alberto Corigliano 679 Dynamic shakedown in elastoplastic structures with general internal variable constitutive laws

Frédéric Barlat
Daniel J. Lege
John C. Brem 693 A six-component yield function for anisotropic materials

Hitoshi Moritoki 713 The criterion for central bursting and its occurrence in drawing and extrusion under plane strain

Volume 7, Number 8 1991

CONTENTS

Akhtar S. Khan **Chiuder Hsiao**	733	Behavior of fully annealed and as-received polycrystalline 1100 aluminum during propagation of small and large amplitude plastic waves
R. Fortunier	749	Large strain plastic deformation by crystallographic slip in metals
H. Sabar **M. Buisson** **M. Berveiller**	759	The inhomogeneous and plastic inclusion problem with moving boundary
A.J. Svobodnik **H.J. Böhm** **F.G. Rammerstorfer**	781	A 3/D finite element approach for metal matrix composites based on micromechanical models
Han C. Wu **Wei C. Yeh**	803	On the experimental determination of yield surfaces and some results of annealed 304 stainless steel
Shiyuan Cheng **Erhard Krempl**	827	Experimental determination of strain-induced anisotropy during nonproportional straining of an Al/Mg alloy at room temperature
D.E. Panayotounakos **M. Markakis**	847	Analytical solutions of mixed mode plane strain crack problems in elastic perfectly plastic materials
D. Marquis **H.S. Costa Mattos**	865	Modeling of plasticity and aging as coupled phenomena
N. Ohno **J.D. Wang**	879	Transformation of a nonlinear kinematic hardening rule to a multisurface form under isothermal and nonisothermal conditions
	893	Announcement
	I	Volume Contents and Author Index